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NEW TO ALABAMA: PITTED BLUESTEM, *BOTHRIOCHLOA PERTUSA* (POACEAE)

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ABSTRACT

Bothriochloa pertusa is an introduced species that has been documented as naturalized in Florida, Louisiana, Maryland, Mississippi, and Texas. This paper documents the first occurrences of this rapidly spreading species in Alabama.

KEY WORDS: Poaceae, pitted bluestem, *Bothriochloa*, Bullock County, Macon County, Montgomery County, Pickens County, Alabama

Pitted bluestem (*Bothriochloa pertusa* (L.) A. Camus) is native to the south and southeast Asian countries of India, Pakistan, Sri Lanka, Vietnam, Thailand, Indonesia, and Malaysia (McIvor & Howden 1992). It has been introduced into southern and eastern Africa, the Arabian Peninsula, southern China, Australia, the Philippines, Hawaii, the Caribbean, northern South America, Central America, and the southern United States as a warm season forage grass and for erosion control (Cook et al. 2005). Pitted bluestem is a stoloniferous perennial growing to a height of approximately 100 cm. The lower glumes of the sessile spikelets have a prominent dorsal pit located near the center of the glume, giving this species its common name (Fig. 2).

The first documentation of pitted bluestem occurring as an escape in the continental United States appears in the *Manual of the Grasses of the United States*, which stated that this species (as *Andropogon pertusus*) was "a troublesome weed in lawns and pastures, State College, Miss." (Hitchcock & Chase 1950). Since that time it has been documented from Florida, Maryland, Louisiana, and Texas (Allred 2003; Hatch et al. 1990; BONAP 2011; USDA 2013; Wunderlin & Hansen 2008).

No Alabama records for *Bothriochloa pertusa* were found in Allred (2003), BONAP (2013), or USDA (2013). This species was not listed in the *Annotated Checklist of the Vascular Plants of Alabama* (Kral et al. 2011) nor were there records for this species on the Alabama Plant Atlas (Kral et al. 2012). The first collection of *Bothriochloa pertusa* from Alabama was from Marengo County in Alabama in 2011, although that specimen was not identified until 2013. In 2012 this species was collected in four additional Alabama counties: Bullock, Macon, Montgomery, and Pickens (Fig. 1). To date, all Alabama collections have come from the Blackbelt Prairie region of the state. This area is characterized by heavy, neutral or basic, clayey soils. All collections have been made in disturbed areas such as roadsides, pastures, and prairie remnants. *Bothriochloa pertusa* often forms extensive

stands in these areas covering up to several hectares (Figs. 3, 4), to the virtual exclusion of other species. *Bothriochloa pertusa* has the potential to become a serious pest, at least in the Blackbelt Prairie region of the state.

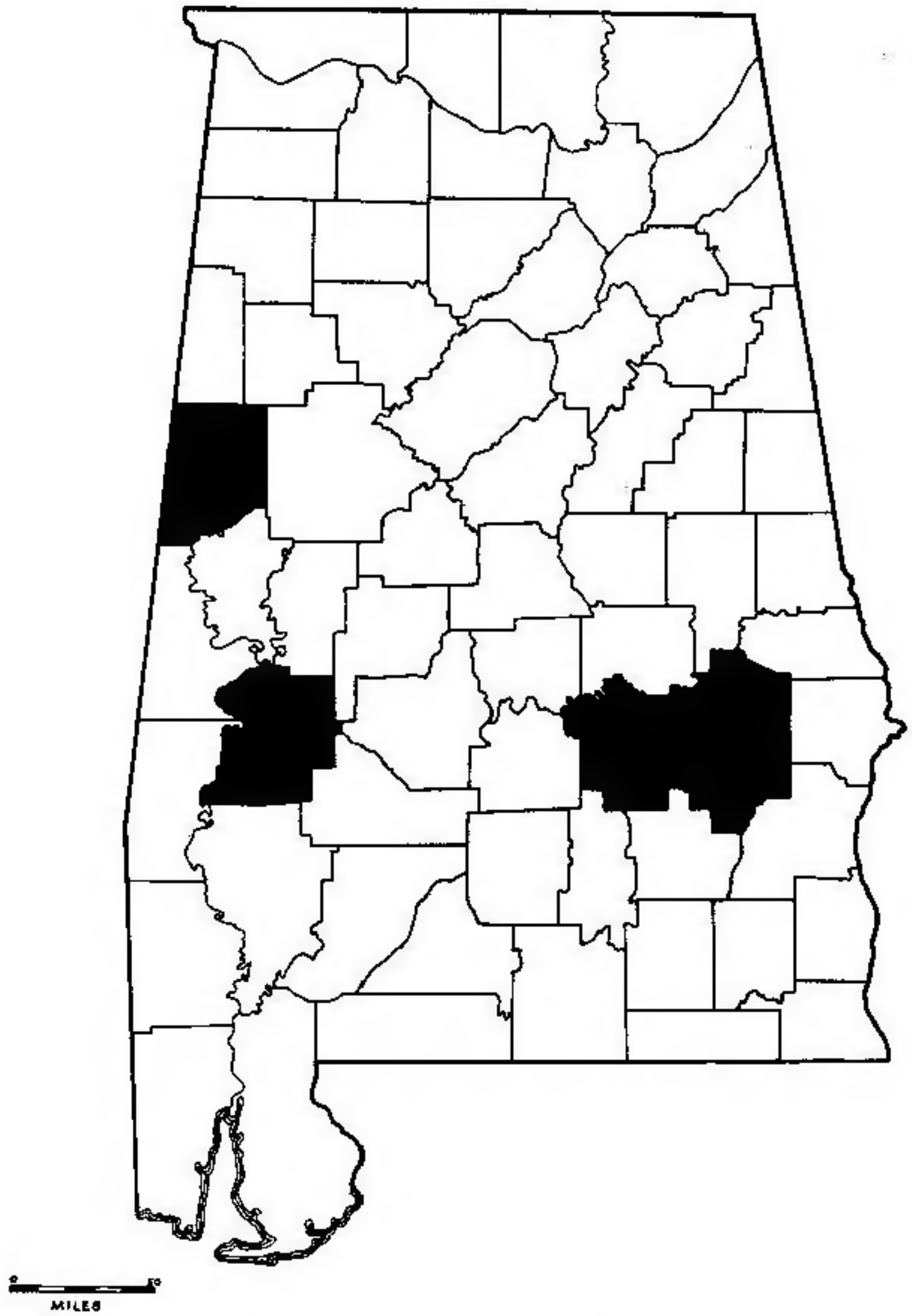

Figure 1. Map of Alabama with counties of documented *Bothriochloa pertusa* populations in black.

Vouchers: **USA**. **Alabama**. Bullock Co.: Alabama Hwy 110, Montgomery/Bullock County line, Blackbelt Prairie roadside, full sun, 32.272000° -85.985417°, 12 Oct 2012, *Dykes 1354* (TROY, duplicate to be distributed to UWAL). Marengo Co.: 3.89 air mi. SE of Demopolis, Demopolis City Sportsplex, along W side of cartpath ca. 0.35 mi. ENE of park administration building, remnant Blackland Prairie along edge of rich, prairie woods, 32.487999° -87.797186°, 1 Oct 2011, *England 3195* (UWAL, duplicates to be distributed to TROY, VDB). Macon Co.: County Hwy 2, 1.45 mi W of the Russell Co. line, 32.243639° -85.458222°, two large patches on the N side of the road, full sun, sandy soil, 5 Oct 2012, *Diamond 23481* (TROY, VDB, UWAL). Montgomery Co.: Alabama Hwy 110, 0.46 mi N of Pharr Road, 32.297139° -86.001861°, forming dense monocultures on the roadsides and in pastures, 7 Sep 2012, *Diamond 23300* (TROY, VDB, UWAL). Pickens Co.: ca. 6.5 mi. NW of Ethelsville; just E of Alabama-Mississippi state line, 33.494172° -88.279472°, hwy median, in association with other Poaceae, 28 Oct 2012, *Bryson 23882* (MMNS, VDB, other duplicates to be distributed); ca. 6 mi. NW of Ethelsville; ca. 0.4 mi E of Alabama-Mississippi state line on US Hwy 82, 33.490333° -88.273439°, hwy median, in association with other Poaceae, 28 Oct 2012, *Bryson 23883* (MMNS, VDB, other duplicates to be distributed); ca. 4.5 mi. NW of Ethelsville; ca. 2 mi E of Alabama-Mississippi state line on US Hwy 82, 33.476706° -88.250883°, hwy median, in association with other Poaceae, 28 Oct 2012, *Bryson 23884* (MMNS, VDB, other duplicates to be distributed); ca. 2 mi. NNW of Ethelsville, ca. 4.8 mi. E of Alabama-Mississippi state line on US Hwy 82, 33.451097° -88.213406°, hwy median, in association with other Poaceae, 28 Oct 2012, *Bryson 23885* (MMNS, VDB, other duplicates to be distributed).

Figure 2. Inflorescence of *Bothriochloa pertusa* with characteristic "pit" on lower glume. Photo by Charles T. Bryson.

Figure 3. *Bothriochloa pertusa* population on roadside in Montgomery County, Alabama. Photo by Alvin R. Diamond.

Figure 4. *Bothriochloa pertusa* population on roadside in Pickens County, Alabama. Photo by Charles T. Bryson.

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